

Consolidated Spectrum Services, 22 Merrill Drive, Atkinson, NH 03811, Phone (603) - 362 - 5977, e-mail css@de-inc.com would like to comment on the proposed changes in the 23 Ghz band as follows.

1.0 - Permitting Conditional Licensing

We understand that the 23 Ghz band is shared between government and non-government and that no agreement exists between the FCC and the NTIA in this band. We encourage the FCC to reach an agreement with the NTIA.

We believe that conditional licensing should be allowed after the Prior Coordination Notices have cleared for all proposed low power (0.1 Watt) licensees regardless of radiated output power. The reasoning for this can be thought of in a simplified fashion. The majority of the radiated power is contained within the three decibel beamwidth of the antenna. As one increases the gain one decreases the beamwidth. For instance, a two foot antenna at 23 Ghz will have a projected three decibel beamwidth of 1.6 - 1.7 degrees while a four foot antenna will have a projected beamwidth of 0.8 - 0.9 degrees. Regardless of radiated power the major area affected is the same. It is much more logical to limit conditional license based upon transmit power only.

Also private companies, are contracted to do coordinations have a financial responsibility to the customer to re-tune the frequencies if the path does not work. It would be foolish for a private coordinators to issue a conditional license if any possible interference could arise.

2.0 - Rechannelizing of the band into 50, 40, 30, 20, 10, 5, and 2.5 Mhz Channels

We generally support this and the proposed band plan. The proposed band plan calls for 1200 Mhz separation between the return channel and the forward channel. In our opinion exceptions should be allowed as follows:

a) In those cases where the coordination states that "non-standard frequencies were utilized due to inter-system or/and intra-system interference therefore an alternate frequency split was utilized" should be permitted. This will allow usage in highly microwave congested areas where one can not coordinate a 1200 Mhz split.

b) Technology has not evolved to the point the NPRM seeks for low priced solutions in the security/monitoring analog FM video market with a return data signal. The return control signal is typically used for pan, tilt and zooming of the camera. We agree that technology will eventually provide low cost solutions. The primary and most general means of power generation today is though a Gunn Effect Oscillator for these systems. These devices typically produce under 0.1 Watts of RF output power and use a 50 Mhz split on the return channel. The return data signal is typically less than 56 Kilo Bits per second. The proposed rule making if passed will entirely eliminate this market. Our suggestion is to make those transmitters with less than 0.1 watts power output exempt from the rules concerning the 1200 Mhz split.

3.0 - Changing the Frequency Tolerance to 0.001 %

We support the change for pure data radios but not video radios used for security/monitoring with a return data signal. These are two different markets, the data radios are more expensive solutions because they require tighter standards, timing, bit error rate, phase noise etc. The typical FM analog video radio on the other hand is a low cost design with much greater frequency tolerance. Typically it is plus and minus 0.03 percent. Furthermore, if a manufacturer does not utilize the whole channel why care what there frequency tolerance is, as long as there fully modulated signal does not go outside the channel.

4.0 - Permitting Common Carrier and POFS Users to share the entire band

We wholly support this change. We also believe that the restriction on broadcasters not allowing them to use the 23 Ghz as the final link in the broadcast chain should be lifted.

**5.0 - Requiring Spectrum Efficiency of One-bit-second per Hertz
(1 bps/Hz)**

We generally support this change as well with the exception of those low power system operating as security/monitoring video market with data return signal. We do not believe that the data return signal should be limited to 1 bps/Hz yet it is ridiculous to occupy a full 50 Mhz channel for 56 KB/S. Each manufacturer should be questioned on this and extension of comment time should be allowed so that manufacturers of these devices can comment on what bandwidth they can live with.

It should be pointed out that many manufacturers of pure data radios meet or exceed these specifications.

6.0 - Designating 200 Mhz, for Low Power Limited Coverage Systems

We believe that the entire band should be designated for Low Power Limited Coverage Systems with transmitter powers of less then 0.1 watts. Our arguent in 1.0 for coverage applies here.

